



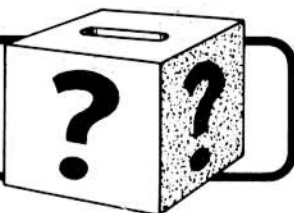
NUCLEAR DIVISION NEWS

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 6 - No. 10

May 15, 1975

QUESTION BOX



If you have questions on company policy, let us know. Write the Editor, Nuclear Division News (or telephone your question in, either to the Editor, or to your plant contact). Your name will not be used in the question, and you may be given a personal answer if you wish.

QUESTION: We do not need to be reminded of the unemployment in this area. There are departments at ORGDP whose clerical employees cannot get the job done in 40 hours. They are required to work many overtime hours each week. Why not hire needed personnel and/or utilize what is here now so these employees will not be required to work overtime?

ANSWER: It would be difficult for us to be specific in our response to your question since you have not identified any particular department, group of clerical employees, or the actual amount of overtime which is worked.

Overtime is worked where the existing workload exceeds the capacity of the work force; but is expected to be temporary or sporadic in nature. There are workload peaks and valleys, and to staff with permanent employees in an attempt to exactly match the workload would result in overstaffing and in the necessity for frequent reductions in force and subsequent rehiring. The Company makes every attempt to keep the working force stable and the use of overtime to meet peak workloads assists us in maintaining our employment stability.

The average overtime in 1974 for all weekly salaried employees at the ORGDP facility was 1.5 hours per week. The Computer Science Division, which worked more overtime than any other division, averaged 1.9 hours per week. Both of these averages are within the normal range expected.

QUESTION: I belong to a carpool. Being monthly, I am frequently not ready to leave work at 4:45, and if I were not in a carpool I would probably put in a lot more time on my job.

My question is, what is the Company policy on carpools for exempt personnel? Which is considered more important: being in a carpool, or putting in the extra time often required for a monthly job?

ANSWER: It's a judgment call! A decision you and your supervisor must make based on the available facts as they apply in your particular situation.

Certainly, UCC-ND has an active program of energy conservation and as a part of that total program encourages carpooling. To further support carpools, a computer "locator service" has been provided to assist employees in locating others in their home and work areas to share rides. Carpools can conserve fuel, reduce pollution, and reduce parking lot congestion.

As to the extra time required for your assignment, there is no fixed policy that applies to all monthly employees. This becomes a matter of your own appraisal as to how best to meet your current job responsibilities based on discussions with your supervisor. Many carpools operate very well with members who occasionally drop out for a day when extra hours are planned. Although requiring some planning on the part of the individual, such alterations are usually acceptable by the other members of the carpool and simple to administer.

QUESTION: I am a fairly new addition to the Oak Ridge work force and would like for you to discuss in some detail the UCC-ND surplus property sales. I have been told that much surplus goes directly to the landfill and that which is sold, is sold only in unrealistically large lots so that only dealers have any chance to buy such property.

ANSWER: Government surplus property becomes available for sale to the general public once it has been determined that none of the four plants operated by UCC-ND for ERDA, ERDA, or no other U.S. Government agency, state or local government body or educational institution has a need for it.

Surplus property and scrap generated at the four plants operated for ERDA by UCC-ND are then advertised for public sale whenever enough material has been accumulated to justify a sale. Property normally sold to the public is obsolete and/or used equipment which includes electronic gear, machine tools, vehicles, typewriters, calculators, etc. Scrap includes

(Continued on page 10)

Annual Cycle Energy System uses nature's weather cycle

Researchers at Holifield National Laboratory are studying an Annual Cycle Energy System (ACES) which its developers believe can save more than half the electrical energy now used to provide space heating and cooling and hot water for most of the nation's residential and commercial buildings.

The development effort is funded by the Department of Housing and Urban Development and the Federal Energy Administration through an interagency agreement with the Energy Research and Development Administration.

Utilizes weather cycle

The Annual Cycle Energy System involves the use of a large, insulated tank of water which serves as an energy storage bin. Heat is obtained from the bin in the winter by a heat pump similar to today's home heat pumps except that the unit draws heat from water rather than air. The pump output provides heated water and warm air for the dwelling during the winter months while simultaneously freezing water in the bin. In the summer months, the ice that was made and stored during the winter is used to provide air conditioning. Because the system is making use of the natural weather cycle, the amount of electrical energy expended for heating and cooling is held to a minimum.

In much of the nation there is a good balance between the heat required to provide hot water all year around and warm air to residences in winter, and the cooling required to air condition them in the summer. The geographical area between Atlanta, Ga., and Minneapolis, Minn., seems to have the temperature range required for optimum operation of such a system.

Where the heating and cooling requirements do not balance closely,

solar heat can be added to bring about the balance. In southern areas where there is a possibility of running out of ice before the summer ends, the system can be operated as a simple air conditioner to provide the extra cooling desired.

Idea not new

The storage bin necessary for the operation of the system can be installed beneath a building during construction, under a parking lot or tennis court, or in an existing garage. Although multi-family dwelling units should be able to make the most economical use of the system, saving more than 50 percent of the total amount of energy usage, the system also is applicable for individual homes.

Laboratory consultant Harry C. Fischer, principal developer of the

(Continued on page 10)

Carbide plans new \$100 million plant near Kentucky line

A new \$100 million plant is planned for Clarksville by Union Carbide Corporation. The graphite electrode plant is comparable to the facility at Yabucoa, Puerto Rico, the newest and most modern of 16 electrode plants operated by Union Carbide or its affiliates throughout the world. Clarksville is northwest of Nashville near the Kentucky border.

Graphite electrodes are used in the electric arc furnace production of steel and iron. The Clarksville investment is a major commitment to the support of this important process, according to UCC officials.

The new plant will be located on a 360-acre plot north and east of Clarksville which has a population of 50,000. The site has access to two railroads and the Cumberland River. Initial employment is estimated at about 400.

The plant is the latest step in Union Carbide's continuing program to keep pace with the graphite electrode requirements of the ferrous metal industry. In January, 1974, plans were announced to add nearly 20 percent new capacity to graphite electrode plants at Puerto Rico and Columbia, Tenn.

Steel made in the electric arc furnace is expected to account for as much as 25 percent of the industry's total production by 1980.

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Reactor Division FFM rig tests simulated assembly

The Fuel Failure Mockup (FFM), a non-nuclear, sodium-flow test facility at Holifield National Laboratory, has completed a series of tests with electrically-heated rods which simulate the configuration, power level and temperature capability of a nuclear fuel assembly designed for the Fast Flux Test Facility at Hanford, Wash. and the Clinch River Breeder Reactor, planned for construction near Oak Ridge.

The purpose of the test series was to determine what thermal-hydraulic conditions would occur in the mock assembly when the sodium coolant flow through the assembly was interrupted. The tests simulated conditions which could occur in the Fast Flux Test Facility in the event of power loss to the reactor coolant pumps.

12 tests performed

The mock assembly consisted of a bundle of 19 rods, each approximately 60 inches long. Within each rod was a heated zone about 18 inches in length. The rods were heated at the full power of 10 kilowatts per foot until boiling of the sodium was observed.

Under conditions of the tests, boiling started at the end of the zone and was stable in nature. Twelve tests were performed in the series and a

total time of boiling of over one minute was obtained, with a maximum single run of 12 seconds.

Acoustic measurements taken with submersible sensors and external hydrophones and microphones clearly indicated the onset of boiling. In addition, thermocouples within the heaters showed the progression of the boiling zone in the rod assembly.

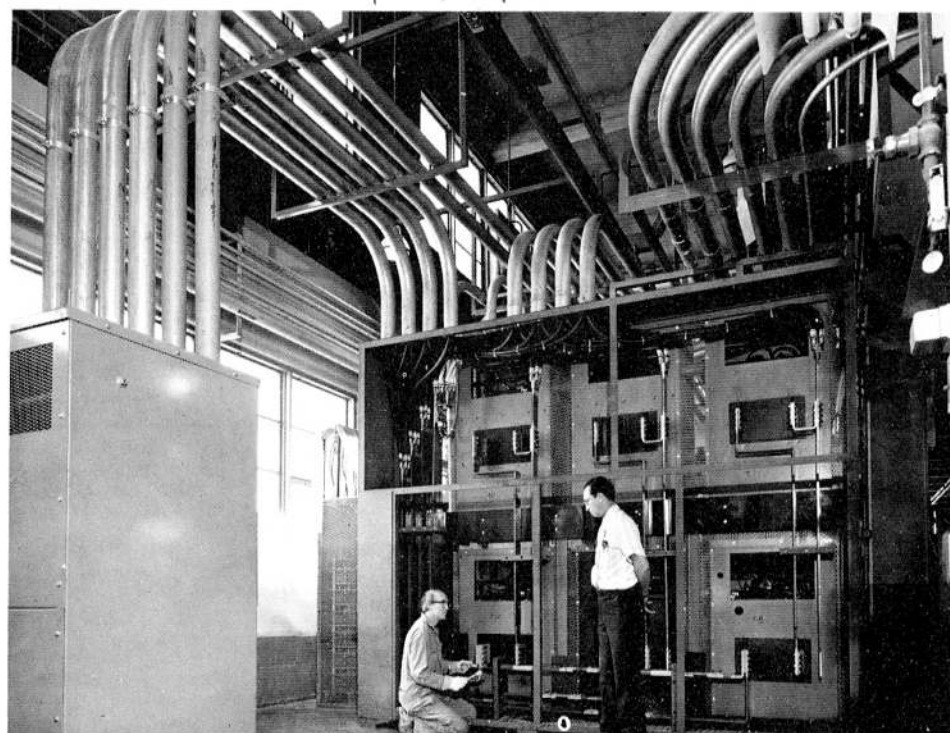
Began operating in 1970

Gordon Fee, director of Reactor Division, said the tests were highly encouraging from at least two standpoints. "The tests showed that the fuel assembly will tolerate blockages and heightens our confidence in the integrity of modern fuel assembly design for such systems. In addition, the tests demonstrated how detection and diagnostic methods may eventually be used in reactor systems."

The FFM, which began operation in 1970, has been used in a variety of test situations to simulate some abnormal fuel assembly conditions which could occur in a sodium-cooled reactor.

Assignments lifted

The program is under the direction of Mario Fontana, manager of LMFBFR safety and core systems programs; John Wantland, program coordinator; and Robert MacPherson, who heads the experimental



NEW POWER CAPABILITY — Leonard Bowers, left, and Paul Gnadt check the installation of a new 2,000 KVA power unit for use with future Fuel Failure Mockup experiments. The new unit will make it possible to increase the number of simulated fuel rods in the mock fuel assemblies tested with the sodium-flow rig. The unit was installed by Rust Engineering.

engineering department. Project engineer for the FFM is Paul Gnadt, assisted by Robert Blumberg, Glenn Mills and Henry Penland. All the above men are with Reactor Division.

Cyrus Smith, of I & C Division, and Norbert Hanus, Reactor Division, are involved in experiment planning, evaluation of test results and application to reactor systems. Les Redford, of I & C Division, is responsible for the automated data transmission and handling systems. Dwayne Fry and Bill Sides, both I & C Division, and Raymond Saxe, from the University of North Carolina, assist in the development of detection methods.

Calendar of EVENTS

May 16

Metals and Ceramics seminar: "Creep and Creep Failure," Brian Wilshire, University College of Swansea, Wales. Conference room S-126, 4500S, 8:45 a.m.

May 23

UT Chemistry general seminar: "The Use of Lasers in Time-Resolved Fluorimetry," F.E. Lytle, Purdue University.

Biology Seminar: "Expression and Linkage Relationships of Lysosomal Enzymes in Somatic Cell Hybrids," Peter A. Lalley, Roswell Park Memorial Institute, 12:15 p.m. Tower I Conference Room.

May 27

ORAU and Health Sciences Division seminar: "Staff Talk-Back," C.C. Lushbaugh, 12 noon, Main Conference Room, ORAU Vance Road Building.

BIMONTHLY COLLOQUIUM: "A Coal-Fired, Gas-Turbine, Total Energy System," Art Fraas. Following the presentation, Herman Postma will answer questions from the floor. Signed questions may be submitted in advance to Truman D. Anderson, Building 9201-3, Mail Stop 2, Y-12.

COMPANY Service

20 25 30

PADUCAH 30 YEARS

Manley B. Fortune, plant control facilities.

Y-12 PLANT 30 YEARS

Katherine O. Steed, Superintendents' Division; and Clebert C. Roberts, guard department.

25 YEARS

Mayford B. McCarter, Edna L. Kennedy and Robert C. McGuffin.

20 YEARS

George H. Steinecipher, William E. Ramsey and Roger K. Carper.

GENERAL STAFF 30 YEARS

Andrew C. Cottrell, Leonora Fletcher and Virginia C. Welch, all in Finance and Budget Division.

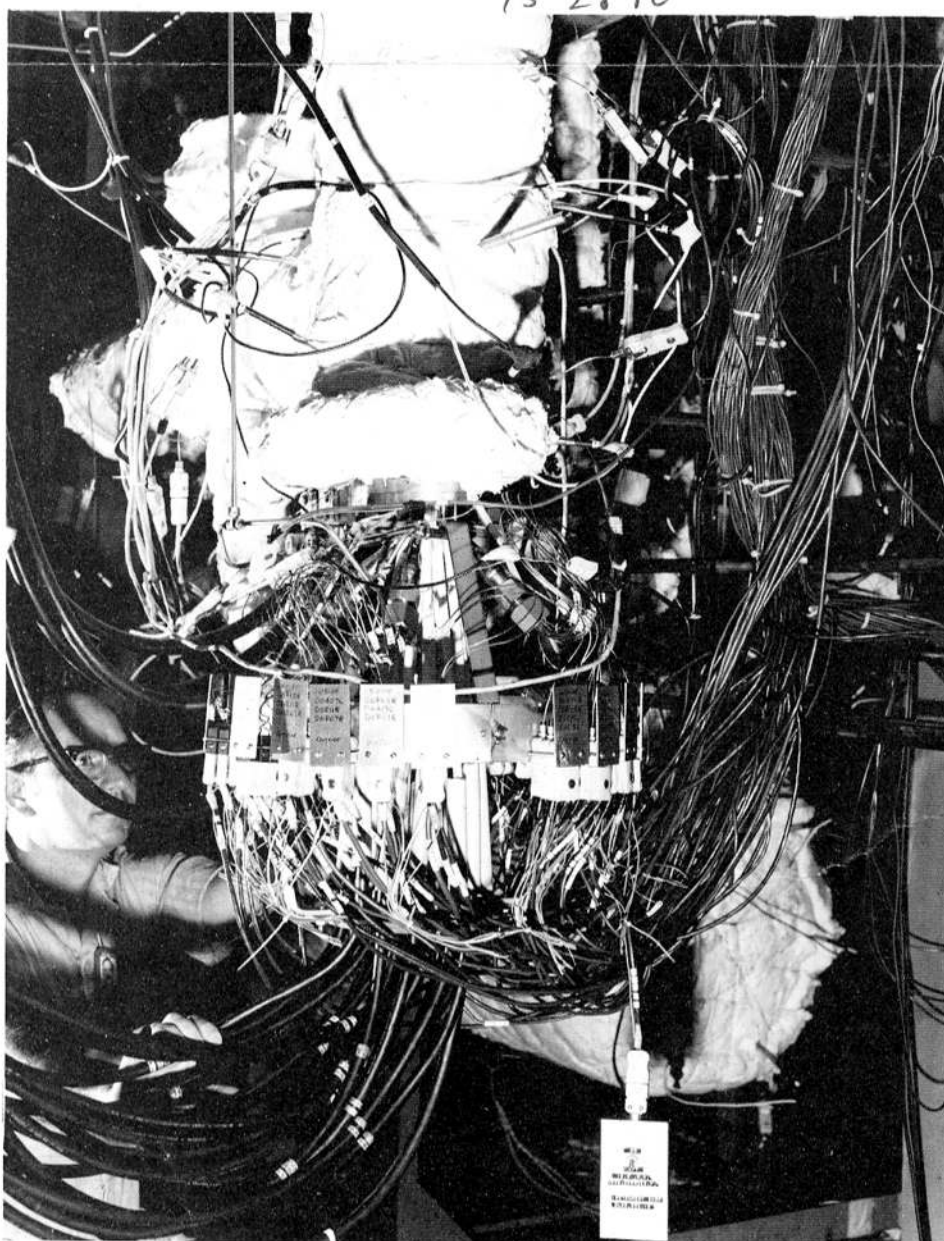
ORGDP

Beryl F. Giles, chemical and technical maintenance; Earl J. Breeding, Engineering Division; David M. Ramsey, U-235 separation department; Marie G. Hester, medical department; Eva D. Brown, maintenance division administration; Benjamin T. Newman Jr., administrative services; James E. Breeding, operations planning department; and Millard J. Gibson, cascade maintenance department.

PATENTS Granted

To Norman G. Anderson, formerly of HNL, and Damos D. Willis, HNL, for "Simplified Rotor for Fast Analyzer of Rotary Cuvette Type."

To Charles D. Scott, HNL, for "Impregnated Chemical Separation Particles."



MAN AND CABLES — The cables are easy enough to see, but finding the man is a bit more difficult. At lower left, Ray Malcolm prepares the FFM's mock fuel assembly, thermocouples and other data-gathering attachments for a test series.



W.B. "Dub" Akers

Advisory posts go to Paducah's Akers

W.B. "Dub" Akers, general maintenance foreman in charge of the machine shop at the Paducah Gaseous Diffusion Plant, has been named to serve on the advisory committees of two educational institutions involved in industrial training.

As a member of Southern Illinois University's advisory committee for the Tool and Manufacturing Technology Program, he will assist in the setting of industrial course curricula and in the design and planning of industrial training facilities.

As a member of the Paducah Area Vocational Center's advisory committee, he will assist in determining the types of machining operations to be taught and the time allotments required for each.

A native of Paducah and a veteran of World War II, Akers joined the Nuclear Division in 1953. He is a graduate of Tilghman High School and has completed a number of study courses at Paducah Community College, Murray State University and the University of Kentucky. His wife is the former Virginia Sherrill of Paducah and they have one son.

Mrs. Grametbauer joins public relations staff

Carol A. Grametbauer recently joined the Nuclear Division's Public Relations staff. She transferred from the Energy Division at Holifield National Laboratory where she was a research assistant in the Regional and Urban Studies Department.

In addition to coordinating and conducting tours of Nuclear Division facilities, Mrs. Grametbauer will perform duties in connection with the publication of the **Nuclear Division News**. Her office will be at the Laboratory.



Mrs. Grametbauer

A native of North Canton, Ohio, Mrs. Grametbauer attended Kent State University where she majored in journalism. She received her bachelor's degree in psychology from The University of Tennessee in 1973.

Her work experience includes serving as assistant editor of the **North Canton Sun**, a weekly newspaper in her hometown; and as layout artist for the Summit County (Ohio) Medical Society's monthly bulletin. She also worked in the University Programs Office of the Oak Ridge Associated Universities.

While a student at UT, Mrs. Grametbauer was elected to Phi Beta Kappa, an honorary fraternity for liberal arts majors. She came to the Laboratory in August, 1973.

Her husband, Gary, is a development engineer at the Oak Ridge Gaseous Diffusion Plant. They reside at 460 East Drive, Oak Ridge.

LABORATORY RETIREE DIES

Charles E. Poe, a pipefitter in HNL's Plant and Equipment Division prior to his retirement in 1966, died April 24 at his home, 200 Hartford Road, Knoxville. Mr. Poe, born in Winona, Miss., came to work at the Laboratory in 1946.

He is survived by his wife, Dolores Baker Poe; a son, Everett R. Poe, and a brother, William Ray Poe, both of Macon, Ga., and one granddaughter, Susan Carol Poe, of Atlanta, Ga.

Four new foremen named in ORGDP installations

Four employees at the Oak Ridge Gaseous Diffusion Plant have been named foremen.

Leo B. Chamblee has been made a power operations foreman in the Operations Division. A native of Christopher, Ky., he joined Union Carbide January 1, 1945, and has worked as a turbine operator and an electric switchboard operator.

He is married to the former Juanita Dougherty and they live at Route 1, Clinton. They have 10 children.

Albert J. Edmonds has been promoted from a maintenance mechanic to a maintenance foreman in Fabrication and Maintenance. He was born in what is now Oak Ridge (near the downtown area).

Mrs. Edmonds is the former Edythe Varnadoe, and they have two daughters. The Edmonds home is at 344 Jefferson Avenue, Oak Ridge.

Edmonds served five years as a medical corpsman in the U.S. Army before joining Union Carbide 29 years ago.

Martha JoAnne Hovater has been made a key punch supervisor in Computer Sciences. A native of Valdese, N.C., she has been at ORGDP 18 years.

She and her husband, Charles W., live at Route 7, Harriman. They have two daughters.

Willard J. Moore has been promoted to a technical illustrations supervisor in Finance, Materials and Services. He began working with Union Carbide in 1953 after working as a draftsman and catalog illustrator for the Knox Porcelain Corporation. He attended The University of Tennessee.

A native of Clinton, he lives at 704 Aeronca Road, Knoxville. Mrs. Moore is the former Faye Toney, who worked in the communications department at ORGDP. They have two daughters and a son.

Chamblee
PH 75-955Edmonds
PH 75-935Mrs. Hovater
PH 75-954

Moore

MAY 26 HOLIDAY

Monday, May 26, is an official holiday for Nuclear Division employees at all four installations. This is Memorial Day, designated by the new act making many holidays fall near weekends.

No employee is required to work unless his presence is required by security or continuous operations.

FORMER HNL WELDER DIES

Clarence Cloud, a welder in HNL's Plant and Equipment Division for 10 years, died April 23 in his home at 1816 Francis Road, Knoxville. A native of Knox County, he left the Nuclear Division in 1962.

Mr. Cloud is survived by his wife, Eva Mae Canupp Cloud; a daughter, Mrs. Jake (Audrey) Thomas, of Lenoir City; a son, Kenneth Cloud of Knoxville; one brother, W.L. Cloud of Knoxville, and seven grandchildren.

Funeral services were held April 25 at Bethel United Methodist Church with the Rev. Carl Netting officiating.

Next Issue

The next issue will be dated June 5. The deadline is May 28.



SAFETY PERFORMANCE PLAUDITS — The Y-12 Plant and the Oak Ridge Gaseous Diffusion Plant received corporate recognition recently, as well as congratulations from the Energy Research and Development Administration and the National Safety Council. William B. Nicholson, Vice Chairman of the Board of Union Carbide Corporation, presents Y-12 Manager Jack M. Case with UCC's Distinguished Safety Performance. Y-12 worked more than 16,000,000 man-hours



in 1974 without a lost-time accident. Nicholson also presented ORGDP Manager Robert A. Winkel the corporation's honor for the plant's more than 4,000,000 man-hours worked without a lost-time accident. Robert J. Hart, Manager of the Oak Ridge Operations of ERDA, presented the Y-12 Plant the Award of Honor, ORGDP the Award of Merit. The Nuclear Division has one of the best safety records in the entire corporation.

Nuclear Safety Information Center performs valuable answer service

The Nuclear Safety Information Center, an important information resource for research laboratories, utilities, industries and regulatory agencies throughout the world since 1963, recently passed a milestone by adding the one-hundred-thousandth publication to the data retrieval system.

The document, one of a series of reports prepared for the Nuclear Regulatory Commission by a Maryland utility firm requesting a construction application for a new nuclear power plant, is typical of the 12,000 documents per year which the Center is placing in the data storage bank at the Computing Technology Center.

The NSIC is operated by Holifield National Laboratory's Reactor Division and is located in the Y-12 Plant. The Center is under the direction of William B. Cottrell, assisted by Joel R. Buchanan. Members of the staff include Raymond L. Scott, Fred A. Heddleson, Richard B. Gallaher, Debbie S. Sharp, Jamie M. Copeland, Angelyn Puckett, Quintella E. Carr, Patricia A. Golden and Wanda Smith. In addition, over a dozen other technical specialists and consultants are utilized on a part-time basis.

15 centers in one

The Center originally was chartered to collect, analyze, store and

disseminate information in six subject areas pertaining to nuclear safety. The present scope of the NSIC covers 15 subject areas, which include: general safety considerations; siting of nuclear facilities; transportation and handling of radioactive materials; heat transfer and thermal transients; reactor transients; kinetics and stability; fission product release, transport and removal; sources of energy release under accident conditions; nuclear instrumentation, control and safety systems; electrical power systems; containment of nuclear facilities; plant safety features - reactor; plant safety features - nonreactor; meteorological considerations; operational safety and experience; safety-analysis and design reports.

Information is obtained by the NSIC in several ways, including the abstracting of pertinent articles and reports published in technical journals, issued by research laboratories or educational institutions or presented at technical society meetings. The NSIC also receives all safety material originating from the Nuclear Regulatory Commission, which includes the NRC standards, documentation of the licensing process, inspection of nuclear facilities before and after operation, and assessment of incidents which occur. In addition,

a subscription service provides NSIC with titles of documents, reports and articles published throughout the world on all relevant nuclear safety subjects. NSIC staff members review these listings and obtain copies of publications with articles which appear to fall within the pertinent subject areas. The Center also has a working arrangement with several foreign countries to obtain information on nuclear safety programs conducted in those countries.

Many outputs

Information output for customers throughout the world is provided in a variety of formats and services, which include: state-of-the-art reports; publication of the bi-monthly journal **Nuclear Safety**; preparation of abstracts; answering technical inquiries; issuing indexed bibliographies; providing selective dissemination; preparing special bibliographies; preparing data compilations; providing information on current research and development; providing technical consultations; maintaining a collection of reactor licensing documents for use by qualified visitors; providing literature searches and preparing handbooks. In addition, the entire computerized collection of data has been made available on the ERDA RECON system, a national remote network with over 35 terminals, each of which has access to the NSIC collection.

The task of answering technical inquiries is an important but time-consuming function. The Center receives over 1,100 information requests each year, about 700 of which require technical evaluation and a considerable expenditure of time and effort by a staff member or members to obtain the desired information.

Variety of questions

"Many different types of questions are asked," Cottrell said, "and the

(Continued on page 10)



RETRIEVAL SYSTEM — The Nuclear Safety Information Center is adding about 1,000 documents per month to its data retrieval system. From an NSIC office in Y-12, Wanda Smith uses an input computer terminal to send information to the Computing Technology Center for storage.

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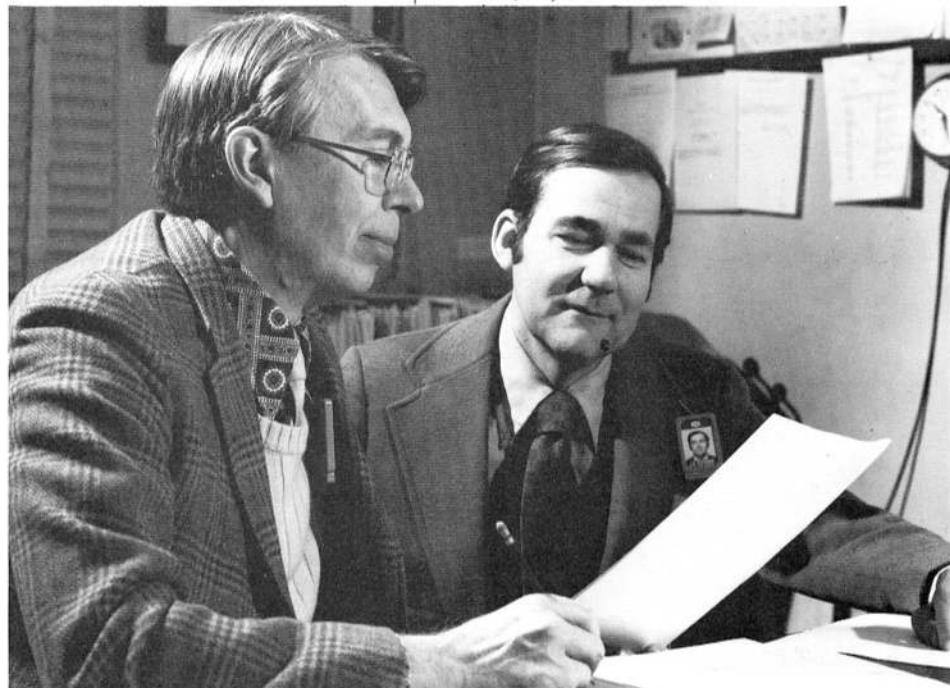
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PASS LANDMARK — Patricia Golden, left, and Jamie Copeland watch as Debbie Sharp logs the 100,000th publication to be added to the Nuclear Safety Information Center. The title of the document was "Preliminary Safety Analysis Report for the Summit Power Station." The station is the name of the high-temperature gas-cooled reactor power plant which the Delmarva Power and Light Company, Wilmington, Del., wants to build.



REVIEWING DOCUMENT — Bill Cottrell, left, director of the Nuclear Safety Information Center since its beginning in 1963, reviews a document with assistant director Joel Buchanan.

7th in series

Savings plan popular part of Carbide's benefit plans

Savings or thrift plans, the subject of this seventh article on benefit costs, are not too common in American industry. Previous articles have discussed the costs of Vacations; Holidays and Other Time Paid For But Not Worked; Social Security; Pensions & Retirement; and Life and Medical Expense Insurance; all of which are included to some degree in the benefit package of practically all industrial concerns. The next article in this series will cover the cost of "All Other Benefits."

Few have savings plans

In the study conducted by the Employee Benefit Plans Task Force and reported in the December 19, 1974, issue of the **Nuclear Division News**, only three of the fourteen companies in the survey, other than UCC, had a savings and/or thrift plan similar to ours.

The Carbide Savings Plan provides the opportunity for both short-term savings and long-term investment. An employee with one year of Company service can participate only in the General (short-term) Savings Fund which pays out every two years. After three years of Company service, an employee may participate in either the General Savings Fund or the long-term Personal Investment Account. The long-term PIA can be used, and is recommended, as a means of supplementing retirement income.

An eligible employee may authorize the Company to deduct up to 7½ percent of his regular earnings for deposit into the Savings Plan. To this amount the Company adds 10 percent for an employee with one year's service, 20 percent for an employee with two years' service, and 30 percent for an employee with three or more years' service.

An eligible employee may also authorize a supplemental deduction up to an additional 5 percent for deposit in the Personal Investment Account. There is no Company contribution in connection with this supplemental deposit.

The costs associated with the day-to-day administration, record keeping and accounting for the funds in the Savings Plan are borne by the Company. Out-of-pocket charges incurred

in the purchase or sale of Union Carbide stock, however, are shared on a pro rata basis by the employees for whom stock is purchased or sold.

Naturally, the Company's principal cost is the money added to each employee's deposit at the time it is credited to the employee's Savings Plan account.

Easily computed

You can easily determine the amount of money which the Company added to your Savings Plan account in 1974 by totaling the basic Savings Plan deductions which appear on your paycheck stubs for that year and multiplying the sum by 10 percent, 20 percent, or 30 percent, depending on the length of your Company Service. If your service changed from one to two years, or from two to three years, you will need to take this into account when making your computation. When the amount added by the Company is determined, divide it by your 1974 earnings and multiply the result by 100. This will give you the per cent of annual pay or cents per payroll dollar paid by the Company for your participation in the Savings Plan.

In 1974, the average cost for the Nuclear Division as a whole was 1.8 cents per payroll dollar.

The Benefit Plans Box Score now shows the following cost in cents per payroll dollar for the benefits discussed in this and previous articles.

BENEFITS COST BOX SCORE	
Vacations	7.4c
Holidays and Other Time Off with Pay	6.7c
Social Security	5.0c
Pension & Retirement	10.1c
Insurance Plans	4.5c
Savings Plan	1.8c
Other Benefits	
Total	36.5c



Kathy Hunt

CENTER AWARDED CONTRACT

The Western Kentucky Easter Seal Center of Paducah has been awarded a contract to make 950 wooden pallets for the Paducah Gaseous Diffusion Plant. The Center, which turned in the lowest bid, is composed principally of persons with physical handicaps.

Kathy Hunt gleans top honors at MSU

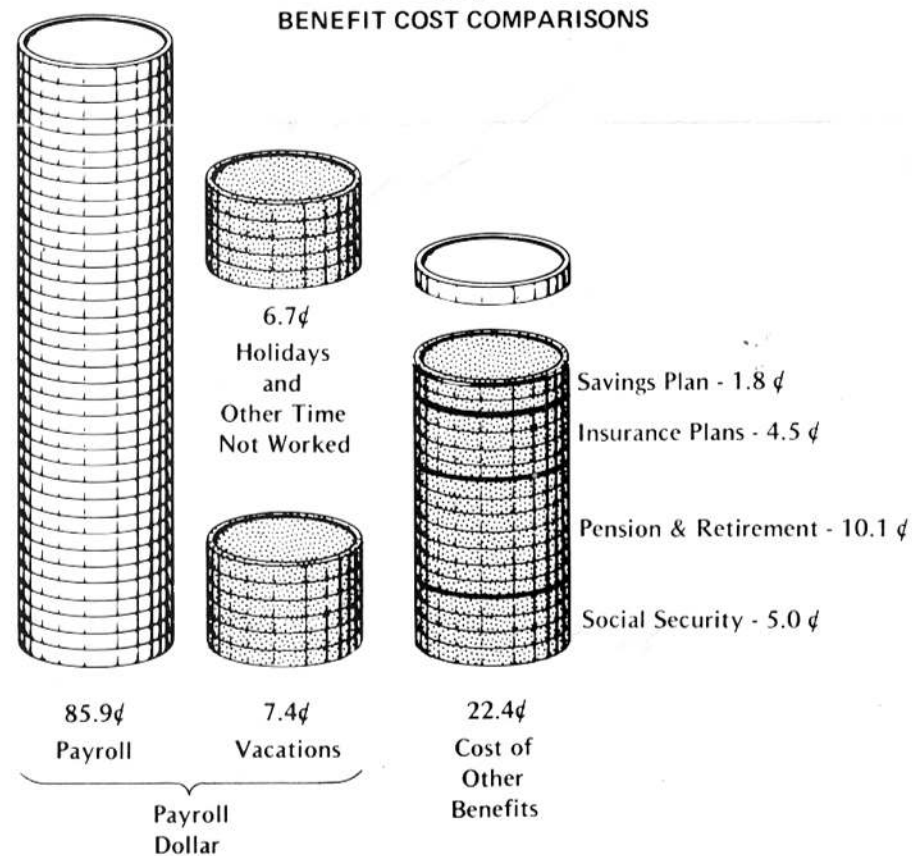
Kathy Hunt has been named the outstanding senior woman at Murray State University. The award was based on scholarship, leadership, citizenship, academic and extra-curricular activities.

Miss Hunt is the daughter of Roger Hunt, Maintenance Division supervisor at the Paducah Gaseous Diffusion Plant. Hunt and his wife, Betty, live on Bleich Road, Paducah.

The MSU senior has been on the dean's list for eight semesters and is presently serving on the judicial board, an extension of the University's student government group. She served as pianist for the Lakeside Singers this past summer, entertaining under the sponsorship of the Kentucky Department of Parks. The musicians performed on Derby Day, at the Barkley Lodge State Park, Kentucky Dam Village State Park and at the Kentucky State Fair.

As a music major, Miss Hunt is a member of the University Choir and traveled with the group on its 1973 European tour. She participated in the opera workshops and for three years appeared in the school's annual musical production, "Campus Lights."

1974 BENEFIT COST COMPARISONS



PERSONALITY PLUS — A seminar "Personality Plus" was recently held at the Ken-Bar Inn on Kentucky Lake. The program was presented by the Paducah-Kentucky Lake Chapter of the National Secretaries Association and conducted by the Dartnell Management Institute. Some 400 businesswomen

from the four-state area attended the day-long program. Mary Allen Pfost, CPS, Paducah Plant, is president of the local chapter of NSA; and Betty Lester, also a CPS, secretary to the Paducah Plant Manager, chaired the seminar committee.

Appalachian artifacts attract all ages at Children's Museum

Did you know there is a real log cabin in Oak Ridge you can touch, or go through? Also a smokehouse, and churns, and flax carders, and other objects from Appalachia's past that's on display . . . and the admission is free.

The Children's Museum, located in the old Highland View School on West Outer Drive, contains many fascinating relics from the past, and from many countries around the world.

For instance, their newest acquisition is a collection of kokeshi dolls from Japan, each crafted differently, and beautifully colored.

"Touching things is highly important to a child," states Selma Shapiro

(wife of Ted, Engineering at HNL), director of the Museum, welcoming you to an interesting tour of the place. And touch they do.

Humble beginning

There's a collection of old hats that brings squeals of delight from the younger girls, as they parade before the mirrors adapted just for them in their grandmothers' and great-grandmother's millinery.

For 20 years the Museum operated as a one-room exhibit, under the auspices of the Oak Ridge Association of Childhood Educators, then closed in 1968 for lack of space. Then in 1973, the dream was revived, and the Museum opened again in its present location - a renovated end of the old school - as Senior Girl Scout Troop No. 69 obtained a \$500 grant from the Readers' Digest Foundation.

"We had hoped for 2,000 visitors the first year," Joyce Maienschein (wife of Fred, HNL Neutron Physics Division), the troop's advisor says, "but we had 400 the first month, and shortly were averaging 600 a month."

Cabins in construction

Surpassing all the interesting exhibits, and one that fascinates visitors, old and young, are the log cabins built in the Pioneer Living Section of the Museum. These exhibits have made history come alive to thousands of youngsters and their families, as they view life in East Tennessee more than 150 years ago. Through the efforts of John Rice Irwin, Bill Countess and George Davis, a dog-trot style cabin (two cabins joined together by a common roof) has been re-constructed in one of the rooms. Many artifacts from life in 1850 have been added, as Boy Scouts enjoyed "chinking" the logs with mud and straw the same way early settlers in the region insulated their cabins against the heat and cold.



CRAFTSMAN — Sharon Fields volunteers her time to teach handicrafts to visitors at the Children's Museum. The philosophy of the entire staff is that doing is more fun than just looking at something. Mrs. Fields' husband, Dave, is in Computer Sciences Division.



TOUCH IS IMPORTANT — Billy Campbell tries his musical talent out on a primitive marimba from Liberia. Visitors are encouraged to touch and operate many of the Museum's displays. An ancient hat collection is the delight of young girls, with mirrors nearby to let the visitors know what they look like in their grandmothers' millinery.



KOKESHI DOLLS — Selma Shapiro displays a collection of individually-designed kokeshi dolls from Japan, which fell into the Children's Museum's possession by fluke from the Smithsonian Institution. "It would have cost \$500 to ship them back, and we just didn't have the money, so they gave them to us," Mrs. Shapiro explains.

The first and largest cabin has been completed, as work progresses on another one. Now, a genuine smokehouse has been added, where hams and bacons were once cured for the pioneer.

There's a shoe awl where the pioneer made shoes and repaired them for his family, a last for each member of the family in his own size. There's a pie-safe where desserts were stored, and individual family crests and artwork were included on the metal fronts, as holes were punched out, allowing air to circulate throughout the safe. Flies could not get in, either.

New display forming

There's soap manufacturing going on, flax-carding, a cotton gin, and utensils around the fireplace where meals were prepared from the fields and forests of East Tennessee.

There's a new section going up in the Museum on coal mining, a vital industry in the Appalachian area for 200 years.

Classes from the Oak Ridge City Schools, Anderson, Bradley, Roane Counties, as well as Knox, the Clinton Schools, and students from the Daniel Arthur Rehabilitation Center have all attended group tours to the Museum. Just ask any of the students

how they enjoyed the Museum, and you can sense the enthusiasm.

Craft classes offered

There are other interesting exhibits, dolls from all over the world, crude musical instruments (that the children can play) from Africa, and Indian relics.

One of the most popular functions at the Museum is craft classes offered throughout the school year and during the summer season. Volunteers, often assisted by high school students themselves proficient in that particular art, teach candlemaking, arts and crafts, weaving, pottery, gardening, model building, banner-making, photography, doll making, and macrame. The classes are one hour per week for six weeks, and cost only 75 cents.

And, Museum folks are just beginning. They recently staged a highly successful Appalachian Folk Culture and Folk Art Exhibit, and are busy furnishing the Cherokee Indian Room, complete with a seven-sided reed hut and craft displays from these early Americans.

Fund outlook

Funding looks better than it did in the early days, too. Requests for funds have been submitted to the An-

(Continued on page 7)



HANDICRAFT FUN — Jean H. Cole demonstrates the potter's wheel to visitors to the Children's Museum. Free-form modeling is fun, too, as the children visitors express their artistic abilities in clay. Mrs. Cole's husband, Tom, is manager of the HTGR safety studies in the Reactor Division.



VALUABLE PIE SAFE — Debbie Mesmer sweeps with a homemade broom around the authentic pie safe salvaged from some East Tennessee home. The cabin, complete with shoe awls, crocks, bureaus, and even a cord bed, was donated to the Museum by John Rice Irwin, local collector and historian.

Children's Museum

(Continued from page 6)

derson County Court, City of Oak Ridge for revenue sharing, the Oak Ridge Schools and the Oak Ridge Arts Council. Grant applications are now being considered by the Tennessee Arts Commission and the National Endowment for the Arts. Future plans include proposals to the Tennessee Valley Authority, the U.S. Department of the Interior (Indian Arts and Crafts Board), and the Tennessee Committee for the Humanities.

And if you want to share some of the contagious enthusiasm just converse with Mrs. Shapiro and some of the other Nuclear Division wives and children involved.

Or better still, if you want to see the Museum, come by during their hours . . . Tuesday through Thursday from 3 to 5 p.m., Wednesday, 2 to 5 p.m. . . . and Sunday, 2 to 4 p.m.

It's a trip you will enjoy!

**"If you don't
have a skin like mine,
watch that sun."**



American Cancer Society

Microcomputer course set by I & C Division

The Instrumentation and Controls Division at Holifield National Laboratory will conduct a two-day course, "Introduction to Microprocessors and Microcomputers," for Nuclear Division engineering and scientific personnel May 28 and 30.

The course is designed to acquaint staff members with the capabilities and limitations of microprocessors and microcomputers, to illustrate their use in solving measurement and control problems, and to introduce microprocessor programming techniques and hardware-software tradeoffs.

Prerequisites to enrollment in the course are the equivalent of a B.S. degree in engineering or science and a working knowledge of digital computer engineering principles or proficiency in minicomputer machine language programming. Classes will be held from 1:30 until 4:30 p.m. in the Laboratory's Isotopes Division Auditorium (Building 3047).

The microcomputer is a microminiaturized general purpose digital computer consisting of a central processor, or microprocessor, in combination with new types of solid state memories. The computing capacity once found in large computers during the 1950's is embodied in a set of microcircuits small enough to be held in one hand.

Interested employees can enroll in the course by calling Annabelle Snellings or Ray Adams at 3-6448. Class size will be limited by available facilities.

NUCLEAR DIVISION SAFETY SCOREBOARD

Time worked without a lost-time accident through May 8:

Paducah	2 Days	12,000 Man-Hours
Laboratory	31 Days	703,000 Man-Hours
ORGDP	3 Days	96,000 Man-Hours
Y-12	65 Days	2,012,000 Man-Hours



Four Oak Ridge Gaseous Diffusion Plant veterans will retire the end of June.

Lawrence W. France, machine shop department, joined Union Carbide in 1951. He lives at 911 West First Avenue, Lenoir City.

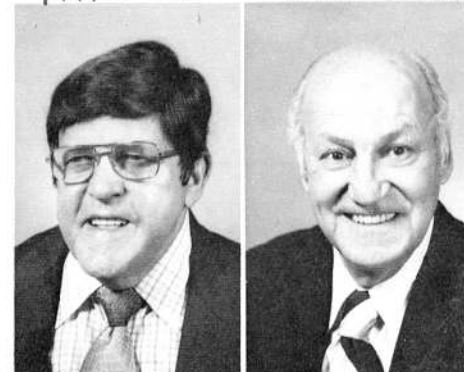
John E. Roy, chemical operations administration, ends more than 31 years of company service. He lives at 217 Virginia Road, Oak Ridge.

Francis J. Andre, design clerk in graphic arts, joined Union Carbide in 1960. He lives at Route 1, Louisville, Tenn.

Clarence R. Lay Jr., Operations Division supervisor, lives at 111 Woodlawn Drive, Kingston. He has been at ORGDP since 1948.

George V. McPeters retired March 31, ending more than 30 years company service. He was in ORGDP plant protection department, and lives at Route 1, Wartburg.

PH75-926 PH75-953



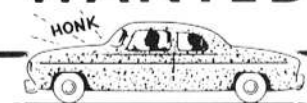
France PH75-1047 Roy PH75-1033



Andre

Lay

WANTED



Y-12 PLANT

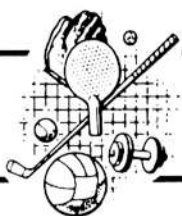
RIDE or will join car pool from Sherwood Circle, Claxton, to East Portal, straight day. John Clark, plant phone 3-5311, home phone Claxton 945-2013.

No man, for any considerable period, can wear one fact to himself, and another to the multitude, without finally getting bewildered as to which may be the true . . . Nathaniel Hawthorne



PLAN GRAPHIC ARTS CONFERENCE — Graphic arts staff members from Holifield National Laboratory and the Y-12 Plant join fellow Planning Committee members in preparing for the Second Annual Industrial Graphics International Conference, to be held at The University of Tennessee June 5 and 6. H. Fritz McDuffie, director of HNL's Information Division, will deliver the keynote address. The conference will feature a film festival and graphics exhibit as well as speakers and panel discussions on a variety of topics. Shown at a planning session are, from left: Bill Clark, HNL; Larry Bohanan, Y-12; J.T. White, HNL; Robin Earley, HNL; Jane Kimbro, Y-12; Jim Holt of ERDA's Technical Information Center; Terry Roller of the Jernigan Matheny Advertising Agency, Inc., Knoxville; Dick LeFevre, UT faculty; Ray Parrott, ERDA, and Marcia Shelly of Creative Displays, Knoxville. Not pictured is committee member John Waggoner of the Engineering organization at HNL.

RECREATIONOTES



LABORATORY GOLF

Doug Collins took the Laboratory's first golf tournament of the year at Whittle Springs, with a one-under par score. Henry Tuck came in second with a 73.

In handicap scoring in division one it was Cecil Brown and Bob Stone, with scores of 74 and 77 each.

Leo Caldwell took 13 pars; while Joe Gracy and Grady Whitman chalked up 12.

In division two it was John Prewitt with a 79, and J. Clem with 80.

Handicap lows were registered by D. Montgomery and George Job, with scores of 82 and 84.

John Waggoner counted 11 pars; Hoby Thomas, nine; and D. Hines, seven.

J. Anderson scored 86 in the third division, and A. Neubert came in second with 87.

W. Pitt and E. Trowbridge were handicap winners with 90 and 95 respectively.

Four pars were tallied by M. Carter, A. Petree, C. Tucker and G. Wilson.

Y-12 GOLF

Jim Vance capped honors at Southwest Point, as Y-12ers debuted on the greens recently. His 75 was low for the day, with Charlie Baxter in second place with 77.

In handicap scoring, it was Don Branson and Bob Walker, 80 each.

Herm Stewart carded 10 pars; Randy Collins and Frank Tiller, nine.

In the second division, it was Iver Jeter and Fred Hammond tied with 83 each.

John Hamilton and Ed Ball, with scores of 86 and 88, took handicap lows.

Norm Dykes parred nine holes, and R.C. Wright seven.

Third Division honors went to Doug Roberts and J.F. Watlington with tallies of 83 and 89 each.

Ken Campbell and R.D. Atkins tied for handicap lows, each with 90.

N. Williams parred six holes. L.A. Walton, P. Patrick, S. Ramsey and D. Justin took three pars.

ORGDP GOLF

Braving pouring rain, ORGDP golfmen took the Dead Horse Lake greens a week later than the other two plants ... thanks to a delay in scheduling.

Lenny Wright, Benny Crass and Harris Creswell tied for first place honors, each turning in a 78 card.

Mike Dalwey and John Ghosten took handicap honors in the first division with scores of 82 and 79 each.

Dave Byrd carded 10 pars; while John Battle, Gus Kosinski, J.J. Patrick and George Wylie all counted nine.

In the second division, it was Charley Hale, with 82; and Charley Ferguson with 83.

Handicap lows went to Bob Eby, 83; and to J.L. Lawhorn, 100.

Sid Hudson and H.E. Bradshaw parred nine holes; J.M. Dabb, eight.

Division three honors went to J.W. Grisard, 84; and Len Hart, 90, and D.J. Hinton tied with a 90 also for second place laurels.

John Shelton and V.E. Houston took handicap lows with 86 and 92.

J.B. Wilhoit counted five pars; William Lenihan, four.

HIGH POWER RIFLE LEAGUE

Y-12's Jack Spurling won the second match of the All Carbide High Power Rifle League with a 480 out of a possible 500. Don Kiplinger, HNL, was second with a 474, and Jack Huff, Y-12, came in third with a 463.

Other scores were:

V.L. Fowler, HNL - 458
J.E. Mrochek, HNL - 455
Hugo Bertini, HNL - 451 (9x)
Carl Brewster, Y-12, - 451 (8x)
W.I. Galyon, Y-12 - 440
E.T. Johnson, Y-12 - 436
J.S. Crowell, HNL - 428
L.W. Weston, HNL - 426
T.R. Lemons, ORGDP - 394
W.F. Steakley, ORGDP - 380
L.M. Toth, HNL - 371
R.D. Allen, ORGDP - 353
J.T. Bell, HNL - 323
J.F. Pitts, HNL - 220

Tee-Off Time Application for May 31

(Check Appropriate Plant)

- ☐ ORGDP — Southwest Point
☐ Y-12 — Whittle Springs
☐ Laboratory — Dead Horse Lake

Check

LEADER

Phone

Bldg.

Time Preferred

COMPLETE AND RETURN TO YOUR RECREATION OFFICE

Entries must be received prior to drawing on May 28, 2 p.m.

ORGDP—Building K 1001—C-Wing—MS 122

Y-12—Building 9711-5

ORNL—Building 2518

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. Golfers are responsible for reserving their own carts by contacting the pro shop following drawing for tee-off times.

ANNUAL UCC-ND ENGINEERING PICNIC AN OLD FASHIONED HOLIDAY

CLARK CENTER RECREATION PARK

JUNE 7, 1975 1:00 till 7:00 p.m.

ADULTS \$2.00 CHILDREN \$1.00

SPORTING EVENTS
BARBERSHOP QUARTET
GAMES FOR ALL AGES
ARTS & CRAFTS FAIR

SEE DEPARTMENT SECRETARY FOR TICKETS BY MAY 30TH



OLD-FASHIONED PICNIC — This poster should be familiar to everyone in the Engineering Division at all three Oak Ridge plants. This year's picnic will be an old-fashioned family affair with something for everybody. Please bring your favorite lawn chairs, advise picnic planners.

Engineering Division picnic set June 7

"A Saturday of Memories: An Old Fashioned Holiday" is the theme of the annual Engineering Division (Oak Ridge Gaseous Diffusion Plant, Holifield National Laboratory and the Y-12 Plant) picnic to be held Saturday, June 7. The scene is the Clark Center Recreation Park, with festivities set to get underway at 1 p.m. This year's picnic will have entertainment and events for the entire family.

The "Hollow Field Mountain Ball and Chain Gang" band (Bluegrass), the "Nightshift" band (contemporary) and the "Skylarks" (internationally famous Barbershop Quartet) will

provide the entertainment. There will be sports events ranging from team sports like softball and a tug-of-war contest to general recreation events like volleyball and horseshoes. An arts and crafts exhibit is planned and there will be a children's program with games for various age groups and a magic show featuring "Lem, the Hillbilly Magician."

It will all be climaxed by a barbeque picnic supper to be served from 5 to 6:30 p.m., and a drawing for door prizes will follow the big meal. Tickets for the event (\$2 for adults, \$1 for children) are available from any department secretary in the division.

Mental health group sets skating party

Nuclear Division employees and their families are invited to a roller-skating party Monday, May 19, in the Oak Ridge Mental Health Association's "Skate for Mental Health" fund-raising drive.

The event will be held from 7 until 10 p.m. at the Hot Wheels Arena in Oak Ridge. Free instruction will be available and door prizes will be awarded.

Steve Blum, Computer Sciences Division, is drive chairman.

Tickets, \$2 for adults and \$1.50 for students, will include skate rental. For those who would like to contribute but who will be unable to at-

tend, plans are being made to donate such tickets to one or more local youth groups.

Tickets are available from any Oak Ridge High School Anchor Club member or at the door.

Proceeds from the event will be used in local programs of mental health education, particularly to make pamphlets available throughout the five-county area (Anderson, Campbell, Morgan, Roane and Scott) served by the Association. Purchase of a ticket will also support the state and national programs of the Mental Health Association in funding research.

The Mental Health Association is a nonprofit organization.

Lost to Cancer

Cancer has claimed such outstanding people as Babe Ruth, Tom Dooley, Eddy Duchin, Nat "King" Cole, Gary Cooper. This year 365,000 other Americans will die of cancer. More than 2.3 million volunteers of the American Cancer Society are seeking your support for programs of research, education and service during the crusade.

The Medicine Chest

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning their health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, or call the news editor in your plant, and give him your question on the telephone.)

By T. A. Lincoln, M.D.

QUESTION: "I have seen several articles in the newspaper which claim that non-smokers inhale potentially harmful amounts of smoke when they breathe the air in a room where there is a lot of cigarette smoking. Is this true or is it just part of the anti-smoking crusade?"



ANSWER: There have been a number of studies on the concentration of tobacco smoke products in closed spaces, but they haven't all agreed in their conclusions. They do agree that smoke from a burning cigarette is distributed into different smoke streams. The mainstream is the one which enters the smoker's mouth during a puff. After deep inhalation, about 70 percent of the smoke particles, 55 percent of the carbon monoxide and 99 percent of the nitrogen dioxide are retained in the lung. The smoke which leaves the burning end during a puff contributes about 95 percent of what is known as sidestream smoke and causes most of the room contamination. Sidestream smoke from one cigarette contains about 75 ml of carbon monoxide which is about five times more than is contained in the mainstream smoke.

Particulates disappear rapidly

The particulate matter in smoke will disappear rapidly, largely due to settling, and 50 percent will be gone from the ambient air in a room in one hour regardless of the ventilation. Nevertheless, Dr. Ulrich Hoegg from the Institute of Environmental Health at the University of Cincinnati has suggested that in meeting rooms or closed automobiles, a nonsmoker passively inhales in one hour, the equivalent of actively smoking .1 to .2 of a cigarette.

In an article in the April 17, 1975, issue of the *New England Journal of Medicine*, Drs. William Hinds and Melvin First, from Harvard, disagreed with some of the earlier conclusions. In their studies, they measured only nicotine as the tracer for smoke because it was the only portion specific for tobacco. Particulate matter is a poor measure because it can come from numerous sources not related to tobacco. Nicotine is not affected by moisture content and exquisitely sensitive gas chromatography analytical methods are available to measure it.

Hinds and First found that the nicotine concentration in public places such as commuter buses, waiting rooms, restaurants or cocktail lounges averaged only about three to ten micrograms per cubic meter. The calculated tobacco smoke concentration ranged from 40 to 400 micrograms per cubic meter, with an average of 207. Such a level is about the equivalent of smoking 1/100 of one filter cigarette per hour, or one-tenth of the estimate made by Dr. Hoegg. The ambient air quality standards for particulate air pollution in a community allow an average of 75 micrograms per cubic meter for a 24 hour exposure with an allowable peak concentration of 260. The occupational exposure standards allow an eight-hour exposure of 500 micrograms per cubic meter of nicotine and 10,000 micrograms per cubic meter for nuisance dusts.

The Harvard investigators believe the annoyance from tobacco results from the gaseous components which contain irritants and odoriferous materials, such as phenols, aldehydes and organic acids. There are no conclusive studies, yet, which suggest that inhaling the equivalent of .1 to .2 of one filter cigarette per day is harmful. Passive smoking in a room "blue" with smoke from active smokers does cause irritation of the eyes and respiratory tract, but exposures to such heavy concentrations are infrequent, so it is doubtful if passive smoking is a common health hazard of any significant magnitude. We need to concentrate our efforts on the active smokers. They are the ones who are suffering and dying prematurely.

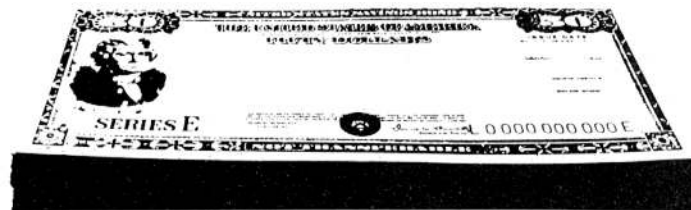
QUESTION: "Recently while jogging, I experienced extreme fatigue in my lower left leg. The leg became tired before I completed my original goal so I continued to jog. By the end of the jogging, the leg seemed about to collapse. A sort of numb feeling remained in the leg even after a few minutes of sitting."

"My question is, could this fatigueness be due to insufficient blood flow and in what way or ways can the condition be corrected or avoided?"

"The jogging is done in regular sneakers on a hard, unlevel surface. I rule these out as the culprits since the right leg was not affected. I really don't expect that my legs are gone at age 28."

ANSWER: Relax, nothing that you describe suggests any circulatory disturbance. You probably strained a

Join the Payroll Savings Plan.



The sooner you start, the more you'll have.

2,300 additional savers added to savings bond payroll group

More than 2,300 Nuclear Division employees have been added to the growing number participating in the purchase of U.S. Savings Bonds through payroll deductions.

John D. Nicol, in the final report published last week, said that 63.9 percent of the Division's 15,951 employees are now wisely buying bonds.

Lee C. Porter, chairman of the campaign at the Oak Ridge Gaseous Diffusion Plant, reported that ORGDP led the four plants, showing 75.3 percent - an increase of 20.4 percent - now purchasing bonds.

The Paducah Gaseous Diffusion Plant, according to David D. Barclay, now has 75.0 percent, or 1,293 employees, now on the bond list. Paducah's increase was by a factor of 15.6 percent.

The Y-12 Plant, according to Roy D. Williams, showed an increase of 13.9 percent, now standing at 72.9 percent. Roger E. Perry, Holifield National Laboratory, reported an increase of 8.5 percent, bringing the

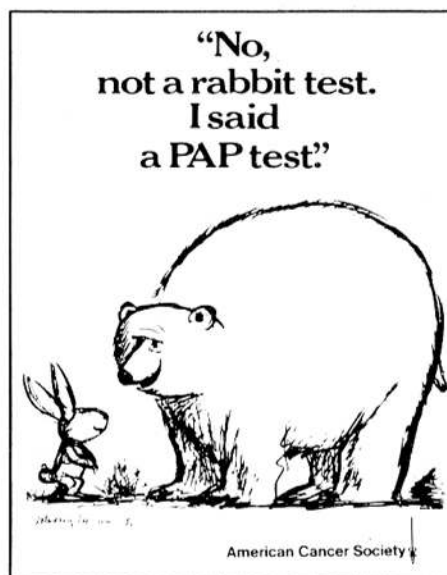
Laboratory's total participation to 40.0 percent.

A total of 10,191 is now purchasing U.S. Savings Bonds through this easy manner of saving. In addition to the increase in participation, Nicol pointed out, a total of 361 Nuclear Division employees increased the amount deducted through regular savings . . . 14 from ORGDP; 13 from Paducah; 146 from Y-12; and 61 from the Laboratory.

Last year, Nuclear Division employees purchased more than \$2.5 million in savings bonds through payroll deductions (this does not include those purchased through the Savings Plan program).

No Need to Catch Up!

Women have come a long way in a lot of things, but they don't need to catch up with men in cigarette smoking, the leading cause of lung cancer, says the American Cancer Society.



muscle. The symptoms caused by an inadequate blood supply to a group of muscles while they are working vigorously are different. There is usually a rapid development of cramping, tension and weakness which requires a person to slow down or stop. When the circulation catches up, the pain goes away, only to recur again when the exercise gets to approximately the same level. Joggers almost never have circulatory cramps in the feet and legs. People with circulatory problems in their extremities seldom even attempt jogging and soon find out that they tire too easily or have cramps. A 28-year-old vigorous male such as you probably has wide-open arteries. I'll wager by now you are already back to running.



APRIL WEDDING — Ruth Ann Dunnam and David L. Fahey were married April 4 at the Glenwood Baptist Church, Oak Ridge. The bride's father, A.G. Dunnam is in Y-12 electrical department; the bridegroom's father, R.A. Fahey is branch chief of the Contracts Division of ERDA-ORO. The bridegroom is in HNL-Y-12 photography.

Hopkins, Wilcox attend international conference



Hopkins Wilcox

Two Nuclear Division officials recently attended the International Conference on Uranium Isotope Separation in London. Clyde C. Hopkins, Manager of the Paducah Gaseous Diffusion Plant, and William J. Wilcox, Technical Director for Production for the Nuclear Division, presented papers at the international symposium.

Hopkins spoke on the "Operating Experience with United States Gaseous Diffusion Plants." He joined Union Carbide in 1952 in Production Control. Later he was appointed head of Production Engineering and Scheduling. In 1970, he was named manager of accounting for the Nuclear Division, and in 1972 was named manager of the Paducah Plant.

Wilcox's paper was entitled "Process Selection for New Uranium Enrichment Plants." He first came to Oak Ridge in 1943 and was associated with the Y-12 Plant for six years, transferring to the Oak Ridge Gaseous Diffusion Plant as a technical assistant. In 1957, he was named head of the physics department, and in 1967 superintendent of the Gaseous Diffusion Development Division. He was named to his present position in 1969.



ORGDP

JOIN car pool from Maryville-Alcoa area, to K-25 Portals 2 or 4, 8-4:30 shift. Brentley Bryant, home phone Maryville 983-6765, plant phone 3-3239, or 3-3555.

LABORATORY

CAR POOL MEMBER wanted from Woodland section, Oak Ridge, to East Portal, 8:15 a.m. to 4:45 p.m. shift. Royes Salmon, plant phone 3-6491, home phone Oak Ridge 483-0803.

RIDERS from Fountain City area to East Portal, 8 a.m. shift. George Hamilton, plant phone 3-6024, home phone Knoxville 687-8262.

CAR POOL MEMBERS from Waddell Circle, West Outer Drive or Pennsylvania Avenue areas, Oak Ridge, to East Portal, 8:15 a.m. shift. Tom Burnett, plant phone 3-6939, home phone 483-1975; or Dick Reed, plant phone 3-1801, home phone 48-3458.

Annual Cycle Energy System

(Continued from page 1)

concept, said the basic idea is not new; it originally was proposed by Great Britain's Lord Kelvin over 120 years ago and was revived by American engineers for study in 1931. The idea was shelved in the 1950's, according to Fischer, because low electric power costs made it easier to pay for energy than to invest in power-saving equipment. Now, he said, the situation has reversed and power-saving equipment should prove a worthy investment for individual homeowners and for developers of multi-family dwellings.

Workshops anticipated

Experiments are now being conducted at the Holifield National Laboratory to verify the calculated performance of the system under various simulated field conditions. To date, performance of the experimental equipment appears to confirm calculations.

Although no Annual Cycle Energy Systems are available for purchase at present, information developed at the Laboratory for the Department of Housing and Urban Development will be shared with commercial manufacturers interested in making such equipment.

It is anticipated that several industrial workshops will be held within the next 12 months to provide architects, consulting engineers, developers, builders, government agencies and mortgage bankers with data on which they can base future building plans.

Also involved in the study is Eugene C. Hise of the Energy Division at HNL.

Candice Strickler joins library staff



Mrs. Strickler

Candice S. Strickler has been promoted to library specialist in HNL's Information Division. A native of Alabama, she received her B.A. degree in sociology from Berea College and her M.S. in library science from the University of Kentucky. She was employed for two years in the University of Kentucky Medical Center Library before joining the Laboratory staff in September, 1974. Before joining the Information Division, she was a library assistant in the emergency technology section, Health Physics Division.

Mrs. Strickler and her husband, Dennis, who is a member of the Computer Sciences Division, reside at 240 Iroquois Road, Oak Ridge.

QUESTION BOX



(Continued from page 1)

ferrous and non-ferrous metals, spent batteries, tires, paper, etc. Vehicles, typewriters, calculators, machine tools, etc. are lotted and sold as separate units in order that individuals may bid. Wherever practical, scrap is lotted and sold in bulk quantities of not less than a full truck load. Some materials are dumped in landfills in those cases where it has been determined that the handling cost to the Government to dispose of the material under the sales procedure exceeds the expected amount of revenue.

QUESTION: During the recent SRA Survey and articles written repeatedly to the Editor, the subject of job reevaluation has been mentioned and discussed. Your answer has been to talk with your supervisor if you do not feel you are being compensated and classified for the work you are doing. My question is: "How long does it take after you have brought this type situation to your supervisor's attention before you can expect action to be taken?"

ANSWER: We are currently in the process of reevaluating all exempt positions. This has been underway for almost a year and should be completed by July, 1975. A four-person job analysis team was also formed during the past six months. Their assignment is to make a continuing review of all nonexempt salaried positions. Both of these activities are directed at the overall job evaluation systems and would normally not be concerned with individual complaints.

If you feel your job requires review before the processes above are completed, it should not take more than a few weeks if your supervisor requests it.

Information center

(Continued from page 4)

preparation of a reply usually requires the participation of the technical specialists. Searches of the computer file also are frequently required. For example, one requester might ask for everything written on fission product release, while another might ask for reports dealing only with the release of one specific fission product."

Another important service is the distribution of Selective Dissemination of Information (SDI) cards, a method of notifying subscribers, on a bi-weekly basis, of the papers published in the specific fields of interest of each subscriber. An SDI card has the paper's title, publication name and date. A typical subscriber receives four or five such cards every other week. Some 300 subscribers now receive this service, compared to a previous list of 2,100 before budget limitations curtailed the number of subscribers.

Latest report

In addition to being a collector and disseminator of information, the NSIC issues about 10 reports per year on special subjects. These reports are sold through the National Technical Information Service in Springfield, Va. The Center's most recent publication is entitled "Protection of Nuclear Power Plants Against External Disasters." According to Cottrell, this document is both a bibliography and a compilation of articles on the subject of protecting nuclear power plants against disasters such as tornadoes, high winds, floods, waves, earthquakes, tidal waves, plane crashes, sabotage, diversion of materials and acts of war.



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P. O. BOX Y, OAK RIDGE, TENNESSEE 37830

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